

# United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

FIRST NAMED INVENTOR ATTORNEY DOCKET NO. CONFIRMATION NO. FILING DATE APPLICATION NO. 10/635,668 08/07/2003 033275-408 8893 Juergen Hoffmann EXAMINER 11/16/2004 21839 BURNS DOANE SWECKER & MATHIS L L P TRIEU, THAI BA **POST OFFICE BOX 1404** ART UNIT PAPER NUMBER ALEXANDRIA, VA 22313-1404 3748

DATE MAILED: 11/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

		$\Lambda$
	Application No.	Applicant(s)
Office Action Summary	10/635,668	HOFFMANN ET AL.
	Examiner	Art Unit
	Thai-Ba Trieu	3748
The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply		
A SHORTENED STATUTORY PERIOD FOR REPLY THE MAILING DATE OF THIS COMMUNICATION.  - Extensions of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication.  - If the period for reply specified above is less than thirty (30) days, a reply - If NO period for reply is specified above, the maximum statutory period w - Failure to reply within the set or extended period for reply will, by statute, Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b).	36(a). In no event, however, may a reply be ting within the statutory minimum of thirty (30) day rill apply and will expire SIX (6) MONTHS from cause the application to become ABANDONE	nely filed  rs will be considered timely. the mailing date of this communication. D (35 U.S.C. § 133).
Status		
<ul> <li>1) Responsive to communication(s) filed on <u>26 August 2004</u>.</li> <li>2a) This action is <b>FINAL</b>. 2b) This action is non-final.</li> <li>3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i>, 1935 C.D. 11, 453 O.G. 213.</li> </ul>		
Disposition of Claims		
4) ☐ Claim(s) 1-11 is/are pending in the application. 4a) Of the above claim(s) is/are withdray 5) ☐ Claim(s) is/are allowed. 6) ☐ Claim(s) 1-6,10 and 11 is/are rejected. 7) ☐ Claim(s) 7-9 is/are objected to. 8) ☐ Claim(s) are subject to restriction and/or Application Papers 9) ☐ The specification is objected to by the Examine.	vn from consideration. r election requirement.	
10) The drawing(s) filed on is/are: a) accepted or b) objected to by the Examiner.		
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).		
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.		
Priority under 35 U.S.C. § 119		
<ul> <li>12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).</li> <li>a) All b) Some * c) None of: <ol> <li>Certified copies of the priority documents have been received.</li> <li>Certified copies of the priority documents have been received in Application No. 09/993,545.</li> <li>Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).</li> </ol> </li> <li>* See the attached detailed Office action for a list of the certified copies not received.</li> </ul>		
Attachment(s)  1) Notice of References Cited (PTO-892)  2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  Paper No(s)/Mail Date	4) Interview Summary Paper No(s)/Mail Do 5) Notice of Informal F 6) Other:	

Art Unit: 3748

#### **DETAILED ACTION**

This office action is in response to the Amendment filed on August 26, 2004.

Applicant's cooperation in correcting the informalities in the Abstract is appreciated.

1. Applicant's arguments, see Page 5, filed August 26, 2004, with respect to the rejection(s)of claim(s) 1-2 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over Claims 1-3 and 5 of U.S. Patent No. 6,644,012. Since Applicants submitted a terminal disclaimer. Accordingly, the double patenting rejection has been withdrawn.

2. Applicant's arguments, see Pages 5-7, filed August 26, 2004, with respect to the rejection(s)of claim(s) 1-2 and 4-6 under 35 U.S.C. § 103(a) as being unpatentable over GB 2 236 145 Hines, in view of U.S. Patent No. 5,329,758 to Urbach et al., and claims 10-11 under 35 U.S.C. § 103(a) as being unpatentable over Hines, in view of Urbach et al., and further in view of Design Choice have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is set forth below. Additionally, the indicated allowable claims 3 and 7-9 have been withdrawn.

## Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Art Unit: 3748

Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Uji (Patent Number 5,417,053); in view of Urbach et al. (Patent Number 5,329,758).

Uji discloses a gas turbine set, with a cooling air system through which at least one cooling air mass flow (20, 21, 23) flows from a compressor (1) to thermally highly loaded components of the gas turbine set, wherein means (10, 36) for increasing the pressure of flowing cooling air are arranged in a cooling air duct of the cooling air system (See Figures 1-2 and 4);

wherein the means for increasing the pressure are ejectors (36) operating with a working fluid (See Figure 4);

wherein the working fluid is a steam mass flow (Coming from 22 to 10) (See Figure 4);

wherein the working fluid flow is an air mass flow branched off from the compressor (1) at a point of higher pressure (at a point where the line 21 is branched off from line 23) (See Figures 1-2)

wherein means (14) for adjusting the working medium mass flow are arranged in a supply duct for the working medium (See Figures 1-2); and

the gas turbine set being a gas turbine set with sequential combustion (See Figures 1-2).

However, Uji fails to disclose the percentage of the working fluid flow being less than 20% of a driven cooling air mass flow.

Art Unit: 3748

Urbach teaches that it is conventional in the steam augmented Gas turbine art, to

utilize the working fluid mass flow being less than 20% of a driven cooling air mass flow

(See Column 3, lines 21-28).

It would has been obvious to one having ordinary skill in the art at that time the

invention was made, to have utilized the percentage of the working fluid flow being less

than 20% of a driven cooling air mass flow, as taught by Urbach, to improve the

efficiency of the Uji device.

Claims 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Uji (Patent Number 5,417,053); in view of Urbach et al. (Patent Number

5,329,758), an further in view of Design choice.

The modified Uji device discloses the invention as recited above; however, fails

to disclose the air mass flow of the working fluid being less than 10% and 5% of the

driven mass flow.

One having an ordinary skill in the gas turbine engine art, would have found the

air mass flow of the working fluid being less than 10% and 5% of the driven mass flow,

as a matter of design choice depending on the gas turbine engine requirements.

Moreover, there is nothing in the record, which establishes that the claimed the range of

the air mass flow of the working fluid being less than 10% and 5% of the driven mass

flow, presents a novel of unexpected result (See In re Kuhle, 526 F. 2d 553, 188 USPQ

7 (CCPA 1975)).

Art Unit: 3748

## Allowable Subject Matter

Claims **7-9** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

## Response to Arguments

Applicant's arguments with respect to claims 1-11 have been considered but are moot in view of the new ground(s) of rejection.

#### Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thai-Ba Trieu whose telephone number is (703) 308-6450. The examiner can normally be reached on Monday - Thursday (6:30-5:00).

However, the examiner's new telephone number (751) 272-4867 will become effective after the expected changeover date of November 22, 2004.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas E. Denion can be reached on (703) 308-2623. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

**Art Unit: 3748** 

Page 6

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

TTB

November 11, 2004

Thai-Ba Trieu
Patent Examiner

Art Unit 3748